

**AMENDMENTS TO THE CLAIMS**

1. (Previously Presented) A method, comprising:
- a) providing:
    - i) uridine-5'-diphosphoglucose;
    - ii) sulfite;
    - iii) an isolated first peptide encoded by the nucleic acid sequence set forth in SEQ ID NO: 6; and
    - iv) an isolated second peptide encoded by a nucleic acid selected from the group consisting of SEQ ID NO:1 and the cDNA corresponding to SEQ ID NO:3;
  - b) reacting said uridine-5'-diphosphoglucose with said first peptide and said sulfite under such conditions that uridine-5'-diphosphosulfoquinovose is generated; and
  - c) treating said uridine-5'-diphosphosulfoquinovose with said second peptide under conditions such that sulfoquinovose diacylglycerol is generated.

2 - 12. (Canceled)

13. (Previously Presented) A method, comprising:
- a) providing:
    - i) uridine-5'-diphosphoglucose;
    - ii) sulfite; and
    - iii) an isolated peptide encoded by the nucleic acid sequence set forth in SEQ ID NO: 6; and
  - b) reacting said uridine-5'-diphosphoglucose with said peptide and said sulfur donor under such conditions that uridine-5'-diphosphosulfoquinovose is generated.

14. (Canceled)

15. (Previously Presented) A method, comprising:

- a) providing:
  - i) uridine-5'-diphosphoglucose;
  - ii) sulfite;
  - iii) the nucleic acid sequence set forth in SEQ ID NO: 6; and
  - iv) a host cell;
- b) transfecting said host cell with said nucleic acid under conditions such that a peptide is expressed;
- c) isolating said expressed peptide; and
- d) reacting uridine-5'-diphosphoglucose with said peptide of step (c) and said sulfite under conditions such that uridine-5'-diphosphosulfoquinovose is produced.

16. (Previously Presented) A method, comprising:

- a) providing:
  - i) uridine-5'-diphosphosulfoquinovose;
  - ii) diacylglycerol;
  - iii) a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 and the cDNA corresponding to SEQ ID NO:3; and
  - iv) a host cell
- b) transfecting said host cell with said nucleic acid under conditions such that a peptide is expressed;
- c) isolating said expressed peptide; and
- d) reacting uridine-5'-diphosphosulfoquinovose with said peptide of step (c) and said diacylglycerol under conditions such that sulfoquinovosyl diacylglycerol produced.

17. (Previously Presented) A method, comprising:
- a) providing: i) a first vector comprising the nucleic acid sequence set forth in SEQ ID NO: 6; ii) a second vector comprising the nucleic acid sequence set forth in SEQ ID NO: 1; and iii) a host cell;
  - b) transfecting said host cell with first and second vectors, thereby creating a transformed host cell, under conditions such that sulfoquinovosyl diacylglycerol is produced by said transformed host cell.
18. (Previously Presented) The method of Claim 17, wherein said host cell, prior to said transfecting of step (b) does not produce sulfoquinovosyl diacylglycerol.
19. (Previously Presented) The method of Claim 18, wherein said host cell is a bacterial host cell.
20. (Previously Presented) The method of Claim 19, wherein said bacterial host cell is *E. coli*.
21. (Previously Presented) The method of Claim 17, wherein said first and second vectors are plasmids conferring different antibiotic resistance on said transformed host cell.
22. (Previously Presented) The method of Claim 17, wherein said host cell, prior to said transfecting of step (b) produces less sulfoquinovosyl diacylglycerol than said transformed host cell.
23. (Previously Presented) The method of Claim 22, wherein said host cell is a plant host cell.
24. (Previously Presented) The method of Claim 23, wherein said plant host cell is derived from a monocotyledonous plant.

25. (Previously Presented) The method of Claim 23, wherein said plant host cell is derived from a dicotyledonous plant.
26. (Previously Presented) A method, comprising:
- a) providing: i) a first vector comprising the nucleic acid sequence set forth in SEQ ID NO: 6; ii) a second vector comprising the nucleic acid sequence corresponding to the cDNA of the sequence set forth in SEQ ID NO: 3; and iii) a host cell;
  - b) transfecting said host cell with first and second vectors, thereby creating a transformed host cell, under conditions such that sulfoquinovosyl diacylglycerol is produced by said transformed host cell.
27. (Previously Presented) The method of Claim 26, wherein said host cell, prior to said transfecting of step (b) does not produce sulfoquinovosyl diacylglycerol.
28. (Previously Presented) The method of Claim 27, wherein said host cell is a bacterial host cell.
29. (Previously Presented) The method of Claim 28, wherein said bacterial host cell is *E. coli*.
30. (Previously Presented) The method of Claim 26, wherein said first and second vectors are plasmids conferring different antibiotic resistance on said transformed host cell.
31. (Previously Presented) The method of Claim 26, wherein said host cell, prior to said transfecting of step (b) produces less sulfoquinovosyl diacylglycerol than said transformed host cell.
32. (Previously Presented) The method of Claim 31, wherein said host cell is a plant host cell.

33. (Previously Presented) The method of Claim 32, wherein said plant host cell is derived from a monocotyledonous plant.

34. (Previously Presented) The method of Claim 32, wherein said plant host cell is derived from a dicotyledonous plant.

35. (Previously Presented) The method of Claim 1, further comprising the step of isolating said sulfoquinovose diacylglycerol generated in step (c).

36. (Previously Presented) The method of Claim 13, further comprising the step of isolating said uridine-5'-diphosphosulfoquinovose generated in step (b).

37. (Previously Presented) The method of Claim 15, further comprising the step of isolating said uridine-5'-diphosphosulfoquinovose produced in step (d).

38. (Previously Presented) The method of Claim 16, further comprising the step of isolating said sulfoquinovosyl diacylglycerol produced in step (d).

39. (Previously Presented) The method of Claim 17, further comprising the step of isolating said sulfoquinovosyl diacylglycerol produced in step (b).

40. (Previously Presented) The method of Claim 26, further comprising the step of isolating said sulfoquinovosyl diacylglycerol produced in step (b).